

Amendments to the Claims

Please amend the Claims as follows:

1. (Currently amended) A position sensor system provided at a slidable vehicle seat for sensing seat position in zones and facilitating controlling of the operation of a vehicle passenger restraint device according to a position of said vehicle seat relative to said vehicle passenger restraint device, said vehicle seat including a pair of substantially parallel slide rail means which comprise upper rail members and lower rail members mounted to a floor of a vehicle, said upper rail members being attached to lower portions of said vehicle seat and supported to said lower rail members so as to be movable along said lower rail members, so that said vehicle seat can be moved along said lower rail members; wherein said upper rail members and said lower rail members are combined with each other, to thereby define inner spaces and said position sensor system is mounted within at least one of said inner ~~space~~ spaces;

said position sensor system comprising:

a magnet arranged within one of an upper rail member and lower rail member of one of the pair of the slide rail means and mounted to a predetermined portion of the one of said upper rail member and lower rail member; and

a magnetic sensor arranged within the other of said upper rail member and lower rail member and mounted to a predetermined portion of the other of said upper rail member and lower rail member so as to be opposed to said magnet;

the other of said upper rail member and lower rail member having an opening formed in said predetermined portion thereof, said magnetic sensor being provided with an armor case having a flange portion, and said magnetic sensor being mounted to said predetermined portion of the other of said upper rail member and lower rail member with said armor case being fitted through said opening, and with said flange portion covering said opening.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently amended) A position sensor system as set forth in Claim [[4]] 1, wherein said magnet comprises a ~~strip-like~~ strip-shaped magnet, said ~~strip-like~~ strip-shaped magnet having chamfered upper edge portions extending along a longitudinal direction thereof and sloping downward.

6. (Currently amended) A position sensor system as set forth in Claim [[4]] 1, wherein said magnet is mounted to said predetermined portion of the one of said upper rail member and lower rail member through an iron plate serving as a yoke.

7. (Cancelled)

8. (Currently amended) A position sensor system as set forth in Claim [[4]] 1, wherein the one of said upper rail member and lower rail member has a ~~flame~~ frame portion provided at said predetermined portion thereof, and said magnet is received in and supported by said frame portion.

9. (Currently amended) A position sensor system as set forth in Claim 5, wherein the one of said upper rail member and lower rail member has a ~~flame~~ frame portion provided at said predetermined portion thereof, and said magnet is received in and supported by said frame portion.

10. (Cancelled)

11. (Cancelled)

12. (Original) A position sensor system as set forth in Claim 8, wherein said frame portion is formed by causing said predetermined portion of the one of said upper rail member and lower rail member to be protruded inwardly.

13. (Original) A position sensor system as set forth in Claim 9, wherein said frame portion is formed by causing said predetermined portion of the one of said upper

rail member and lower rail member to be protruded inwardly.

14. (Cancelled)

15 (Cancelled)

16. (Currently amended) A position sensor system as set forth in Claim [[4]] 1, wherein the one of said upper rail member and lower rail member has a recess portion provided at said predetermined portion thereof, and said magnet is received in said recess portion.

17. (Original) A position sensor system as set forth in Claim 5, wherein the one of said upper rail member and low rail member has a recess portion provided at said predetermined portion thereof, and said magnet is received in said recess portion.

18. (Cancelled)

19. (Cancelled)

20. (Currently amended) A position sensor system as set forth in Claim [[4]] 1, wherein the one of said upper rail member and lower rail member has a pair of spaced apart rising pieces formed by causing regions of said predetermined portion thereof to be cut and causing said regions to rise up inwardly, and said magnet is interposed between said spaced apart rising pieces and retained by said spaced apart rising pieces.

21. (Original) A position sensor system as set forth in Claim 5, wherein the one of said upper rail member and lower rail member has a pair of spaced apart rising pieces formed by causing regions of said predetermined portion thereof to be cut and causing said regions to rise up inwardly, and said magnet is interposed between said spaced apart rising pieces and retained by said spaced apart rising pieces.

22. (Cancelled)

23. (Cancelled)

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37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Currently amended) A position sensor system as set forth in Claim 40 1, wherein said armor case of said magnetic ~~sensor further~~ sensor further has a pair of spaced apart spring clips provided at both sides thereof, said magnetic sensor being mounted to said predetermined portion of the other of said upper rail member and lower rail member with said armor case being inserted through said opening, with said spring clips being engaged with an edge of said opening, and with said flange portion being pressed against the other of said upper rail member and lower rail member due to actions of said spring clips.

42. (Currently amended) A position sensor system as set forth in Claim 40 1, wherein said flange portion is provided with an applying piece protruding laterally from said flange portion, said magnetic sensor being mounted to said predetermined portion of the other of said upper rail member and lower rail member by causing said applying piece to be secured to said predetermined portion of the other of said upper rail member and lower rail member by means of a tapping screw.

43. (Cancelled)

44. (Cancelled)

45. (Cancelled)

46. (Currently amended) A position sensor system as set forth in Claim [[4]] 1, wherein said position sensor system further includes cleaner means for cleaning said magnet, said cleaner means being arranged within the other of said upper rail member and lower rail member and mounted to a second predetermined portion of the other of said upper rail member and lower rail member.

47. (Currently amended) A position sensor system as set forth in Claim 46, wherein said cleaner means comprises a body mounted to said second predetermined portion of the other of said upper rail member and lower rail member, and cleaner piles provided on said body.

48. (Cancelled)

49. (Cancelled)

50. (Cancelled)

51. (Currently amended) A slidable vehicle seat comprising:
a pair of substantially parallel slide rail means including upper rail members and lower rail members mounted to a floor of a vehicle;

said upper rail members being attached to lower portions of said vehicle seat and supported to said lower rail members so as to be movable along said lower rail members, so that said vehicle seat can be moved along said lower rail members;

said upper rail members and said lower rail members being combined with each other, to thereby define inner spaces therein; and

a position sensor system for sensing seat position in zones and facilitating controlling of the operation of a vehicle passenger restraint device according to a position of said vehicle seat relative to said vehicle passenger restraint device;

said position sensor system being mounted within at least one of said inner spaces;

said position sensor system comprising:

a magnet arranged within one of an upper rail member and lower rail member of one of the pair of said slide rail means and mounted to a predetermined portion of the one of said upper rail member and lower rail member; and

a magnetic sensor arranged within the other of said upper rail member and lower rail member and mounted to a predetermined portion of the other of said upper rail member and lower rail member so as to be opposed to said magnet;

the other of said upper rail member and lower rail member having an opening formed in said predetermined portion thereof, said magnetic sensor being provided with an armor case having a flange portion, and said magnetic sensor being mounted to said predetermined portion of the other of said upper rail member and lower rail member with said armor case being fitted through said opening, and with said flange portion covering said opening.

52. (Cancelled)

53. (Cancelled)

54. (Cancelled)

55. (Currently amended) A slidable vehicle seat as set forth in Claim ~~54~~ 51, wherein said magnet comprises a ~~strip-like~~ strip-shaped magnet, said ~~strip-like~~ strip-shaped magnet having chamfered upper edge portions extending along a longitudinal direction thereof and sloping downward.

56. (Currently amended) A slidable vehicle seat as set forth in Claim ~~54~~ 51, wherein said magnet is mounted to said predetermined portion of the one of said upper rail member and lower rail member through an iron plate serving as a yoke.

57. (Cancelled)

58. (Currently amended) A slidable vehicle seat as set forth in Claim ~~54~~ 51, wherein the one of said upper rail member and lower rail member has a ~~flame~~ frame portion provided at said predetermined portion thereof, and said magnet is received in and supported by said frame portion.

59. (Currently amended) A slidable vehicle seat as set forth in Claim ~~55~~, wherein the one of said upper rail member and lower rail member has a ~~flame~~ frame portion provided at said predetermined portion thereof, and said magnet is received in

and supported by said frame portion.

60. (Cancelled)

61. (Cancelled)

62. (Original) A slidable vehicle seat as set forth in Claim 58, wherein said frame portion is formed by causing said predetermined portion of the one of said upper rail member and lower rail member to be protruded inwardly.

63. (Original) A slidable vehicle seat as set forth in Claim 59, wherein said frame portion is formed by causing said predetermined portion of the one of said upper rail member and lower rail member to be protruded inwardly.

64. (Cancelled)

65. (Cancelled)

66. (Currently amended) A slidable vehicle seat as set forth in Claim ~~54~~ 51, wherein the one of said upper rail member and lower rail member has a recess portion provided at said predetermined portion thereof, and said magnet is received in said recess portion.

67. (Original) A slidable vehicle seat as set forth in Claim 55, wherein the one of said upper rail member and lower rail member has a recess portion provided at said predetermined portion thereof, and said magnet is received in said recess portion.

68. (Cancelled)

69. (Cancelled)

70. (Currently amended) A slidable vehicle seat as set forth in Claim ~~54~~ 51,

wherein the one of said upper rail member and lower rail member has a pair of spaced apart rising pieces formed by causing regions of said predetermined portion thereof to be cut and causing said regions to rise up inwardly, and said magnet is interposed between said spaced apart rising pieces and retained by said spaced apart rising pieces.

71. (Original) A slidable vehicle seat as set forth in Claim 55, wherein the one of said upper rail member and lower rail member has a pair of spaced apart rising pieces formed by causing regions of said predetermined portion thereof to be cut and causing said regions to rise up inwardly, and said magnet is interposed between said spaced apart rising pieces and retained by said spaced apart rising pieces.

72. (Cancelled)

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89. (Cancelled)

90. (Cancelled)

91. (Currently amended) A slidable vehicle seat as set forth in Claim ~~90~~ 51, wherein said armor case of said magnetic sensor further has a pair of spaced apart spring clips provided at both sides thereof, said magnetic sensor being mounted to said predetermined portion of the other of said upper rail member and lower rail member with said armor case being inserted through said opening, with said spring clips being engaged with an edge of said opening, and with said flange portion being pressed against the other of said upper rail member and lower rail member due to actions of said spring clips.

92. (Currently amended) A slidable vehicle seat as set forth in Claim ~~90~~ 51, wherein said flange portion is provided with an applying pieces protruding laterally from said flange portion, said magnetic sensor being mounted to said predetermined portion of the other of said upper rail member and lower rail member by causing said applying piece to be secured to said predetermined portion of the other of said upper rail member and lower rail member by means of a tapping screw.

93. (Cancelled)

94. (Cancelled)

95. (Cancelled)

96. (Currently amended) A slidable vehicle seat as set forth in Claim ~~52~~ 51, wherein said position sensor system further includes cleaner means for cleaning said magnet, said cleaner means being arranged within the other of said upper rail member and lower rail member and mounted to a second predetermined portion of the other of said upper rail member and lower rail member.

97. (Original) A slidable vehicle seat as set forth in Claim 96, wherein said cleaner means comprises a body mounted to said second predetermined portion of said upper rail member and lower rail member, and cleaner piles provided on said body.

98. (Cancelled)

99. (Cancelled)

100. (Cancelled)